



Cultivating lotus on raised beds in flood prone areas, Viet Nam

Source	FAO Strategic Objective 5 – Resilience, in FAO
Keywords	Plant, lotus, flood
Country of first practice	Viet Nam
ID and publishing year	7578 and 2012
Sustainable Development Goals	No poverty, decent work and economic growth, climate action and life on land

Summary

This practice describes how cultivating lotus in raised beds can create employment and generate income in the rainy season. The example of the flood prone areas of the Quang Tri province of north central Vietnam is used to highlight its benefits.

Steps on how to implement the technology are listed in terms of drainage, soil type selection, bed measurements, sowing methods and costs.

Description

Cultivating lotus in raised beds is a local adaptation practice in flood prone areas of the Quang Tri province of north central Vietnam. Communities traditionally collected lotus seeds from plants grown in common water bodies and sold them in markets. However, there was no initiative to further develop, promote and disseminate this practice. The practice of raised beds has been recognized as suitable for broader replication in flood prone areas only recently, and communities have thus started to engage in cultivating lotus also in low lying flood prone areas.

The objective of lotus cultivation on raised beds is to ensure production at a time when cultivation would normally be impossible, providing employment opportunities and

household income also during flooding periods.

1. Implementation of the technology

Lotus cultivation on raised beds can be implemented during the rainy season from September to December in the low lying areas of the country, on land that farmers would otherwise leave fallow due to excessive water stagnation.

The cultivation of lotus in raised beds requires drainage of excess water through small channels in order to create favorable soil conditions for the cultivation and to counteract the impact of heavy rainfall and strong cyclonic storms that regularly affect north central Vietnam. Primary beneficiaries are small farmers and small local businessman.

The practice is most successful in freshwater ecosystems with heavy textured soils. The raised beds should be 30 to 50 cm high and 100 cm wide, in order to create favorable soil conditions. Drainage channels should be wide (100 cm). Lotus seeds for cultivation are usually available locally. The lotus seeds are sown on the raised beds.

The raised beds need a slight readjustment every year before the beginning of the rainy season.



Crop Production

The initial cost of land preparation is substantial. However, family labourers can be engaged in preparing the raised beds. This practice does not imply any maintenance costs. Lotus cultivation provides employment opportunities during flood season and increases household income.

Institutional support is required to disseminate this practice into other ecologically similar regions. Local market facilities to procure lotus seeds have to be established and should be connected with export institutions. Institutional interventions are necessary in order to curtail exploitation by middle men. Local community-based organizations and financial institutions need to be strengthened to promote replication of the practice.

Figure 1. Raised beds in flood prone areas



2. Validation of the practice

The technology was tested in low land farming systems, in the agro-ecological zone of warm humid tropics, in Vietnam.

3. Agro-ecological zones

- Temperate, cool

4. Objectives fulfilled by the project

4.1 Pro-poor technology

This practice requires investment only at the beginning, however it generates income during the rainy season.